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IN THE UNITED STATES
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Appl. No.: **10/750,451**

Confirmation No.: **4989**

Appellant/Applicants: **Ross KONINGSTEIN, et al.**

Filed: **December 31, 2003**

Title: **SUGGESTING AND/OR PROVIDING TARGETING CRITERIA FOR
ADVERTISEMENTS**

TC/A.U.: **3622**

Examiner: **Michael Bokerman**

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S I R:

APPEAL BRIEF

Further to the Notice of Appeal filed on September 9, 2010, which set a period for response to expire on November 9, 2010, that period being extended two (2) months to expire on January 9, 2011, the appellant requests that the Board reverse all outstanding grounds of rejection in view of the following.

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I. Real Party In Interest

The real party in interest is Google, Inc. An assignment of the above-referenced patent application from the inventors to Google, Inc. was recorded in the Patent Office starting at Frame 0484 of Reel 018197.

II. Related Appeals and Interference

An Appeal Brief was filed by the appellant with the U.S. Patent and Trademark Office on June 25, 2007 in connection with the present application. After the Appeal Brief was filed, the Examiner cited a new ground of rejection in the Examiner's Answer dated December 9, 2008. In response to the new ground of rejection, the appellant elected to reopen prosecution of the present application in accordance with 37 C.F.R. § 41.39(b)(1).

III. Status of Claims

Claims 1, 2, 5-15, 18-39, 42, 43, 46-56, 59-84 and 86-88 are pending.

Claims 3, 4, 16, 17, 40, 41, 44, 45, 57, 58 and 85 have been canceled.

Claims 1, 2, 5-15, 18-39, 42, 43, 46-56, 59-84, and 86-88 are rejected. Specifically, claims 1, 6-10, 14, 19-23, 27, 30, 32-36, 42, 47-51, 55, 60-64, 68, 71, 73-77, 81-84 and 86-88 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication No. 2003/0055816 ("the Paine publication"). Claims 2, 11, 15, 24, 28, 29, 37, 43, 52, 56, 65, 69, 70 and 78 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Paine publication. Claims 5, 18, 31, 46, 59 and 72 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Paine publication in view of U.S. Patent Application Publication No. 2002/0052894 ("the Bourdoncle publication"). Claims 12, 13, 25, 26, 38, 39, 53, 54, 66, 67, 79 and 80 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Paine publication in view of U.S. Patent Application Publication No. 2001/0052000 ("the Giacalone publication").

The foregoing rejections of claims 1, 2, 5-15, 18-39, 42, 43, 46-56, 59-84, and 86-88 are appealed.

IV. Status of Amendments

There have been no amendments subsequent to the final Office Action dated June 9, 2010 (Paper No. 20100527).

V. Summary of the Claimed Subject Matter

Independent claim 1 claims a computer-implemented method for determining one or more ad targeting keywords, the computer-implemented method comprising:

(a) accepting, with a computer system including a plurality of networked computers, a category (This is supported, for example, by elements 450 and 460 of Figure 4, 610 of Figure 6, and the description on page 19, lines 15 and 16, page 21, line 23, and page 24, lines 3-19.), (b) looking up, with the computer system, one or more keywords using the accepted category and a previously stored association of a plurality of categories and keywords (This is supported, for example, by elements 460, 350, and 465 of Figure 4, 620 of Figure 6, and the description on page 19, lines 15-19 and page 21, lines 24 and 25.),

(c) storing, with the computer system, at least some of the one or more keywords as one or more ad targeting keywords of an advertisement (This is supported, for example, by 650 of Figure 6 and the description on page 19, lines 19-21 and page 21, line 30 through page 22, line 1.), and

(d) controlling, with the computer system, a serving of the advertisement using the stored one or more ad targeting keywords, wherein when the advertisement is served with the computer system, presentation of the advertisement to a user is induced (This is supported, for example, by the description on page 13, line 19 through page 15, line 13.).

Independent claim 14 claims a computer-implemented method for determining one or more ad targeting keywords, the computer-implemented method comprising:

- (a) accepting, with a computer system including a plurality of networked computers, a category (This is supported, for example, by elements 450 and 460 of Figure 4, 610 of Figure 6, and the description on page 19, lines 15 and 16, page 21, line 23, and page 24, lines 3-19.),
- (b) looking up, with the computer system, one or more keywords using the accepted category and a previously stored association of a plurality of categories and keywords (This is supported, for example, by elements 460, 350, and 465 of Figure 4, 620 of Figure 6, and the description on page 19, lines 15-19 and page 21, lines 24 and 25.),
- (c) transmitting, with the computer system, the one or more keywords as suggested targeting keywords to induce presentation of the one or more keywords to an advertiser (This is supported, for example, by 650 of Figure 6 and the description on page 19, lines 19-21 and page 21, line 30 through page 22, line 1.),
- (d) receiving, with the computer system, advertiser input in response to the suggested targeting keywords (This is supported, for example, by 740 of Figure 7 and the description on page 22, lines 15-18.), and
- (e) determining whether or not to store at least some of the one or more keywords as targeting keywords for an advertisement of the advertiser using the received advertiser input (This is

supported, for example, by 750 of Figure 7 and the description at page 22, lines 21-23.).

Independent claim 27 claims a computer-implemented method for generating one or more serving constraints for targeting an ad, the computer-implemented method comprising:

- (a) accepting, with a computer system including a plurality of networked computers, ad information,
- (b) determining, with the computer system, a category using the accepted ad information (These two acts are supported, for example, by 410 and 420 of Figure 4, and the description on page 18, line 20 through page 19, line 13, and page 24, lines 3-19.),
- (c) looking up, with the computer system, one or more keywords using the accepted category and a previously stored association of a plurality of categories and keywords (This is supported, for example, by elements 460, 350, and 465 of Figure 4, 620 of Figure 6, and the description on page 14, lines 3-14, page 19, lines 15-19, page 21, lines 24 and 25 and page 26, lines 16-20.),
- (d) storing, with the computer system, at least some of the one or more keywords as one or more ad targeting keywords of an advertisement (This is supported, for example, by 650 of Figure 6 and the description on page 19, lines 19-21 and page 21, line 30 through page 22, line 1.), and
- (e) controlling, with the computer system, a serving of the advertisement using the stored one or more ad targeting keywords, wherein when the advertisement is served with the computer system, presentation of

the advertisement to a user is induced (This is supported, for example, by the description on page 13, line 19 through page 15, line 13.).

Independent claim 42 claims an apparatus for determining one or more ad targeting keywords, the apparatus comprising:

- a) an input for accepting a category (This is supported, for example, by elements 215 and 216 of Figure 2, elements 930 and 932 of Figure 9, element 700 of Figure 7, page 11, lines 9-19, page 22, lines 8-24, and page 24, lines 5, 6, and 27-29 of the present application.)
- b) a plurality of networked processors (This is supported, for example, by element 910 of Figure 9 and page 24, lines 3-20 of the present application.);
- c) at least one storage device storing executable instructions which, when executed by the plurality of networked processors, performs a method including (This is supported, for example, by element 920 of Figure 9 and page 24, lines 3-26 of the present application.):
 - (1) looking up one or more keywords using the accepted category and a previously stored association of a plurality of categories and keywords (This is supported, for example, by elements 460, 350, and 465 of Figure 4, 620 of Figure 6, and the description on page 19, lines 15-19 and page 21, lines 24 and 25.),
 - (2) storing at least some of the keywords as one or more ad targeting keywords of an

advertisement (This is supported, for example, by 650 of Figure 6 and the description on page 19, lines 19-21 and page 21, line 30 through page 22, line 1.), and

(3) controlling a serving of the advertisement using the stored one or more ad targeting keywords, wherein when the advertisement is served, presentation of the advertisement to a user is induced (This is supported, for example, by the description on page 13, line 19 through page 15, line 13.).

Independent claim 55 claims an apparatus for determining one or more ad targeting keywords, the apparatus comprising:

- a) an input for accepting a category (This is supported, for example, by elements 215 and 216 of Figure 2, elements 930 and 932 of Figure 9, element 700 of Figure 7, page 11, lines 9-19, page 22, lines 8-24, and page 24, lines 5, 6, and 27-29 of the present application.)
- b) a plurality of networked processors (This is supported, for example, by element 910 of Figure 9 and page 24, lines 3-20 of the present application.);
- c) at least one storage device storing executable instructions which, when executed by the plurality of networked processors, performs a method including (This is supported, for example, by element 920 of Figure 9 and page 24, lines 3-26 of the present application.):

- (1) looking up one or more keywords using the accepted category and a previously stored association of a plurality of categories and keywords (This is supported, for example, by elements 460, 350, and 465 of Figure 4, 620 of Figure 6, and the description on page 19, lines 15-19 and page 21, lines 24 and 25.),
- (2) transmitting the one or more keywords as suggested targeting keywords to induce presentation of the one or more keywords to an advertiser (This is supported, for example, by 650 of Figure 6 and the description on page 19, lines 19-21 and page 21, line 30 through page 22, line 1.),
- (3) receiving advertiser input in response to the suggested targeting keywords (This is supported, for example, by 740 of Figure 7 and the description on page 22, lines 15-18.), and
- (4) determining whether or not to store at least some of the one or more keywords as targeting keywords for an advertisement of the advertiser using the received advertiser input (This is supported, for example, by 750 of Figure 7 and the description at page 22, lines 21-23.).

Independent claim 68 claims an apparatus for generating one or more keywords as candidates for use as ad targeting keywords, the apparatus comprising:

- a) an input for accepting ad information (This is supported, for example, by elements 215 and 216 of Figure 2, elements 930 and 932 of Figure 9, element

700 of Figure 7, page 11, lines 9-19, page 22, lines 8-24, and page 24, lines 5, 6, and 27-29 of the present application.)

b) a plurality of networked processors (This is supported, for example, by element 910 of Figure 9 and page 24, lines 3-20 of the present application.);

c) at least one storage device storing executable instructions which, when executed by the plurality of networked processors, performs a method including (This is supported, for example, by element 920 of Figure 9 and page 24, lines 3-26 of the present application.):

- (1) determining a category using the accepted ad information (This is supported, for example, by 410 and 420 of Figure 4, and the description on page 18, line 20 through page 19, line 13, and page 24, lines 3-19.),

- (2) looking up, with the computer system, one or more keywords using the accepted category and a previously stored association of a plurality of categories and keywords (This is supported, for example, by elements 460, 350, and 465 of Figure 4, 620 of Figure 6, and the description on page 14, lines 3-14, page 19, lines 15-19, page 21, lines 24 and 25 and page 26, lines 16-20.),

- (3) storing, with the computer system, at least some of the one or more keywords as one or more ad targeting keywords of an advertisement (This is supported, for example, by 650 of Figure 6

and the description on page 19, lines 19-21 and page 21, line 30 through page 22, line 1.), and (4) controlling, with the computer system, a serving of the advertisement using the stored one or more ad targeting keywords, wherein when the advertisement is served with the computer system, presentation of the advertisement to a user is induced (This is supported, for example, by the description on page 13, line 19 through page 15, line 13.).

Independent claim 84 claims a computer-implemented method comprising:

(a) accepting, with a computer system including a plurality of networked computers, ad information, (b) determining, with the computer system, one or more categories using the accepted ad information (These two acts are supported, for example, by 410 and 420 of Figure 4, and the description on page 18, line 20 through page 19, line 13, and page 24, lines 3-19.), (c) transmitting, with the computer system, at least one of the one or more categories determined to induce presentation of the at least one of the one or more categories to an advertiser, and (d) receiving, with the computer system, advertiser feedback with respect to the presented one or more categories (These two acts are supported, for example, by element 720 of Figure 7, and the description on page 18, line 27 through page 19, line 1, and page 22, lines 11-15.), wherein each of the one or more categories is specifically

associated with one or more keywords in a data structure stored on the computer system (This is supported, for example, by elements 350, including 352 and 354, of Figure 3 and the description on page 19, lines 17-19.).

VI. Grounds of Rejection to be Reviewed on Appeal

The issues presented for review are whether:

(1) (separately patentable and argued groups of) claims 1, 6-10, 14, 19-23, 27, 30, 32-39, 42, 47-51, 55, 60-64, 68, 71, 73-77, 81-84 and 86-88 are anticipated by the Paine publication;

(2) (separately patentable and argued groups of) claims 2, 11, 15, 24, 28, 29, 37, 43, 52, 56, 65, 69, 70 and 78 are unpatentable over the Paine publication;

(3) claims 5, 18, 31, 46, 59, and 72 are unpatentable over the Paine publication in view of the Bourdoncle publication; and

(4) claims 12, 13, 25, 26, 38, 39, 53, 54, 66, 67, 79 and 80 are unpatentable over the Paine publication in view of the Giacalone publication.

VII. Argument

The appellant respectfully requests that the Board reverse the final rejections of claims 1, 2, 5-15, 18-39, 42, 43, 46-56, 59-84 and 86-88 in view of the following.

Rejections under 35 U.S.C. § 102

Claims 1, 6-10, 14, 19-23, 32-36, 47-51, 55, 60-64, 68, 71, 73-77, 81-84 and 86-88 stand rejected under 35 U.S.C. § 102(e) as being anticipated by the Paine publication. The appellant respectfully requests that the Board withdraw this ground of rejection in view of the following.

Various patentable features of the claimed invention will be described below with respect to separate groups of claims. The Paine publication provides a tool for finding good search terms for an advertiser's Website while removing bad ones (See, e.g., paragraph [0012].). Although embodiments consistent with the claimed invention concern determining one or more keywords (or some other serving constraints which may be used for ad targeting), there are significant, and patentable, differences between how the Paine publication and the claimed invention determine keywords or search terms.

The Paine Publication

The Paine publication makes search term recommendations by (i) looking for good search terms directly on an advertiser's Website (referred to as "spidering"), and/or (ii) comparing an advertiser to other, similar, advertisers and recommending the search

terms those other advertisers have chosen (referred to as "collaborative filtering"). In at least one embodiment, the output of the spidering step is used as input to the collaborative filtering step. (See, e.g., paragraph [0013].) These techniques are discussed with reference to Figures 10-20 of the Paine publication.

Spidering in the Paine Publication

Spidering is a known technology for downloading a Website rooted at a uniform resource locator (URL). Specifically, a home page of the Website specified by the URL is downloaded and scanned for hyperlinks to other pages, which are similarly downloaded and scanned until the program reaches a predefined link depth, downloads a predetermined number of pages, or reaches some other stopping criterion. (See, e.g., paragraph [0096].)

Search terms may be determined from this spidering. The search terms may be scored using two factors -- (i) how common a search term is on the World Wide Web, and (ii) how often users search for it. The search terms may then be sorted by either the score quality or by the number of times they have occurred in the downloaded pages. (See, e.g., paragraph [0097].)

As can be appreciated from the foregoing, determining search term recommendations from spidering simply uses terms found in the advertiser's Website, but not "categories".

Collaborative Filtering in the Paine Publication

Generally, collaborative filtering is used to make recommendations based on user similarity. In the case of the Paine publication, collaborative filtering is used to

make recommendations based on advertiser similarity in terms of search terms that they have used for their ads. More specifically, the Paine publication computes the Pearson correlation between a new advertiser and all of the existing advertisers using a numeric rating (e.g., 0 to 5) assigned to each entry in an advertiser/term table. An existing advertiser might get a rating of 5 for every term that it has bid on and a rating of UNKNOWN for every other term. The new advertiser (to which recommendations are to be made) might get a rating of 5 for terms it has accepted, a 1 for terms that it has rejected, and a 2 for every other term. (See, e.g., paragraph [0102].)

Once the collaborative filter has computed the correlation between the new advertiser and the existing advertisers (that is, how similar the new advertiser is to various existing advertisers), the collaborative filter predicts how likely it is that each term is a good search term for the new advertiser. (See, e.g., paragraph [0104].)

As can be appreciated from the foregoing, determining search term recommendations from search terms used by other advertisers using collaborative filtering does not use "categories."

Combining Spidering and Collaborative Filtering in the Paine Publication

Spidering and collaborative filtering may be used in combination. For example, spidering may provide recommended search terms which a new advertiser may accept or reject. Given such an initial list of accepted and rejected search terms (which may have ratings based on whether or not the terms were accepted or rejected),

collaborative filtering may be used to provide an updated list of search terms which may be accepted or rejected by the new advertiser. Collaborative filtering may be run repeatedly based on the latest list of accepted or rejected search terms until the user is satisfied. (See, e.g., paragraphs [0107]-[0112] and Figure 10.)

As can be appreciated from the foregoing, determining search term recommendations using a combination of spidering and collaborative filtering does not use "categories."

The Examiner's Interpretation of the Paine Patent

The Examiner is apparently interpreting (1) accepting at least one category as reading on accepting the "spidering" results in the Paine publication, and (2) determining one or more keywords from using the accepted at least one category as reading on using the "spidering" results to get "collaborative filtering" results in the Paine publication. To reach this conclusion, the Examiner is interpreting "**category**" to include search terms and keywords. However, in exemplary embodiments consistent with the present invention, each of a number of categories is associated with one or more keywords. Consequently, a category can be used to lookup one or more keywords. As one example, Figure 3 of the present application includes an index 350 in which a category 352 can be used as a key to obtain associated keywords 354.

The appellant continues to disagree with the Examiner's interpretation of "category". The ordinary meaning of category is a defined class in a classification system. In the context of the Internet and e-commerce, those skilled in the art appreciate that

categories typically pertain to product and service categories. For example, the Website Amazon.com includes product categories including Books, Music, DVD, VHS, Magazines & Newspapers, Computer & Video Games, Software, Electronics, Audio & Video, Camera & Photo, Cell Phones & Service, Computers, Office Products, Musical Instruments, Home & Garden, Automotive, Bed & Bath, Furniture & Décor, Gourmet Food, Kitchen & Housewares, Outdoor Living, Pet Supplies, Tools & Hardware, Apparel & Accessories, Shoes, Jewelry & Watches, Beauty, Health & Personal Care, Sports & Outdoors, Toys & Games and Baby.

The use of the term "category" in the specification is consistent with the ordinary meaning of category and its meaning in the context of e-commerce. For example, in the illustrative example provided in § 4.3 of the specification, it is described that:

Category determinations operations 410 may determine various, possibly relevant, categories (and possibly sub-categories) such as:

automobiles ...
computers ... operating systems ...
music ... popular music ...
music ... musical instruments ...
animals ... mammals ... felines ...
movies ... foreign films ...
travel ... resorts ...
sports & recreation ... snorkeling ... scuba ...
sports & recreation ... football ...
pets ... fish

Page 25, lines 13-26. Embodiments consistent with the present invention use associations between categories and keywords to suggest appropriate keywords. Using categories allows the suggestion of irrelevant keywords

(that might occur due to the fact that some words, like "Jaguar" for example, can have multiple meanings), to be avoided.

On the other hand, although the Paine publication also recommends or suggests search terms used when serving ads, it does not use **categories** as claimed. Rather, it uses spidering (which uses keywords found on a Website -- **not categories**) and/or collaborative filtering (which uses keywords from other advertisers considered to be similar to the new advertiser, **not categories**, based on their use of common keywords) as described above.

The Examiner uses the fact that "automobile" is used as an example of a search term in the Paine publication and a category in the present application in an attempt to prove that search terms and keywords are the same as categories. **However, the fact that a particular term might be used as a label representing a category does not mean that the same term, when used as a search term, represents a category.** Thus, the appellant respectfully submits that the rejection rests on an improper interpretation of "category" -- one that violates Phillips v. AWH Corp., 75 U.S.P.Q.2d 1321 (Fed. Cir. July 12, 2005) (en banc) (referred to as "Phillips v. AWH" below). That is, when interpreting the term "category," the Examiner improperly ignores the specification as it would be interpreted by one of ordinary skill in the art. In Phillips v. AWH, the Court of Appeals for the Federal Circuit ("the CAFC") stated:

the specification "is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best

guide to the meaning of a disputed term."

Id., at 1327, quoting from Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996).

Patentable Features of the Claimed Invention

Having introduced the Paine publication, various patentable features of the claimed invention are discussed.

As an initial matter, the Examiner alleges that the claimed category reads on a "word." In the Examiner's Answer, the Examiner uses the fact that "automobile" is used as an example of a search term in the Paine publication and a category in the present application in an attempt to prove that search terms and keywords are the same as categories. ***However, the fact that a particular term might be used as a label representing a category does not mean that the same term, when used as a search term, represents a category.*** Specifically, the Examiner's argument is apparently that since certain words might sometimes be a label representing a category, a word is inherently a category. This is clearly improper under the well-established case law which requires that an anticipatory inherent feature or result be consistent, necessary and inevitable, not merely possible or probable. (See, e.g., Transclean Corp. v. Bridgewood Services, Inc., 62 U.S.P.Q.2d 1865 (Fed. Cir. 2002); See also, Eli Lilly & Co. v. Barr Laboratories, Inc., 58 U.S.P.Q.2d 1865 (Fed. Cir. 2001), cert. denied, 122 S.Ct. 913 (2002).) That is, the Examiner's allegation that a particular word ***might be*** used as a label representing a category constitutes, at best, a

possible result (not a consistent, necessary, or inevitable result) under the applicable case law. A possible (or accidental) result does not constitute an anticipation.

The Examiner also argues that the Appellant's specification uses "category" and "keyword" interchangeably to perform the same functions, and as an example cites that keywords can be used to lookup categories and categories can be used to lookup keywords. The appellant respectfully disagrees for reasons set forth below. In addition, the facts that (1) keywords can be used to lookup categories, and (2) categories can be used to lookup keywords does not make them equivalent. For example, a keyword can "belong to" one more categories, and a category may "include" one or more keywords. These are clearly different relationships.

The Examiner also alleges that the appellant never specifically defines category. However, a specific definition is not required. In any event, as discussed above, the term "category" has an established definition in the art of electronic advertising and electronic commerce, and examples, consistent with this well-established meaning, are provided in the specification. Thus, the Examiner's interpretation of "categories" is inconsistent with both (1) the interpretation that one of ordinary skill in the art would have used and (2) the specification, and is therefore improper. (See MPEP 2111.)

To summarize, the claimed "categories" cannot be properly characterized as "keywords".

Group I: Claims 1, 14, 42 and 55

Independent claims 1, 14, 42 and 55 are not anticipated by the Paine publication because the Paine publication does not teach an act of (or means for) **looking up one or more keywords using a category**. First, a category does not read on the keywords of the Paine publication. Further, regardless of whether or not a "category" reads on the keywords returned by spidering in the Paine publication as alleged by the Examiner, these alleged categories are not used to **"look up"** keywords. To reiterate, the Paine publication computes the Pearson correlation between a new advertiser and all of the existing advertisers using a numeric rating (e.g., 0 to 5) assigned to each entry in an advertiser/term (apparently, the Examiner interprets "term" as being read on by "category") table. An existing advertiser might get a rating of 5 for every term that it has bid on and a rating of UNKNOWN for every other term. The new advertiser (to which recommendations are to be made) might get a rating of 5 for terms it has accepted, a 1 for terms that it has rejected, and a 2 for every other term. (See, e.g., paragraph [0102].) Once the collaborative filter has computed the correlation between the new advertiser and the existing advertisers (that is, how similar the new advertiser is to various existing advertisers), the collaborative filter predicts how likely it is that each term is a good search term for the new advertiser. (See, e.g., paragraph [0104].) ***This collaborative filtering process to get terms (alleged to be keywords) used by other advertisers from existing terms (alleged to be categories) is not using a category to lookup one or more keywords.*** Accordingly, independent

claims 1, 14, 42 and 55 are not anticipated by the Paine publication for at least this reason.

Furthermore, the Examiner had argued that "looking up" is a broad term and that the Paine publication uses a word to look up other words. (See Examiner's answer dated December 9, 2008, page 11.) The appellant respectfully disagree.

First, "looking up" has a well-established meaning in the art (a function in which a previously constructed index or table of values is searched for a desired item or items of information), and the use of the term in the specification is consistent with this meaning in the art. Note also that dependent claims 5, 18, 31, 46, 59 and 72 (grouped separately) recite that the lookup uses an index. Using an index is also consistent with this well-established meaning of looking up in the art. Thus, the Examiner's interpretation of "lookup" or "looking up" is inconsistent with both (1) the interpretation that one of ordinary skill in the art would have used and (2) the specification, and is therefore improper. (See MPEP 2111.)

Group II: Claims 27, 68 and 81-84

First, claims 27, 68 and 81-83 are not anticipated by the Paine publication for at least the reasons discussed above with reference to the claims of Group I.

Next, independent claims 27, 68 and 84 are not anticipated by the Paine publication because the Paine publication does not teach accepting ad information and determining a category using the accepted ad information. In rejecting claims 27, 68 and 84, the Examiner contends

lines 1-3 of the Abstract of the Paine publication teach the aforementioned feature. (See Paper No. 20100527, page 3.) However, the cited portion of the Paine publication merely provides:

In a pay-for-placement search system, the system makes **search term recommendations** to advertisers managing their accounts in one or more of two ways. A first technique involves **looking for good search terms directly on an advertiser's web site**. A second technique involves comparing an advertiser to other, similar advertisers and recommending the search terms the other advertisers have chosen. [Emphasis added.]

(lines 1-3 of the Abstract of the Paine publication)
Making search term recommendations to advertisers does not teach the combination of (A) accepting ad information and (B) **determining a category using the accepted ad information**. As discussed above, the claimed "categories" cannot be properly characterized as "keywords" or "search terms."

Thus, claims 27, 68 and 84 are not anticipated by the Paine publication for at least this additional reason. Since claim 83 depends from claim 27, and since claims 81 and 82 depend from claim 68, these claims are similarly not anticipated by the Paine publication.

Group III: Claims 86 and 87

First, since claims 86 and 87 depend from claims 1, they are not anticipated by the Paine publication for at

least the reasons discussed above with reference to the claims of Group I.

Second, claims 86 and 87 recite a relationship between categories and keywords (or serving constraints) which would enable a lookup such as that discussed above with reference to the claims of Group I. Specifically, these claims recite that each of the one or more categories ***is specifically associated with*** one or more keywords (or serving constraints). The use of collaborative filtering in the Paine publication to get terms (alleged to be keywords) used by other advertisers from existing terms (alleged to be categories) does not specifically associate the existing terms with the terms used by other advertisers. Therefore, claims 86 and 87 are not anticipated by the Paine publication for at least this additional reason.

Finally, the Examiner had argued that in the Paine publication, "if a program is able to get one set of terms from another set of terms, those two sets of terms have to be inherently 'associated'." (See Examiner's answer dated December 9, 2008, page 11.) This argument ignores the fact that these claims further recite that ***the association is used to lookup keywords***. That is, in claims 86 and 87, the association exists before the keyword(s) are looked up and provided (and ***must exist before*** since the association is used by the lookup). By contrast, in the Examiner's application of the Paine publication, the association ***exists only after*** the other set of terms is generated by the program.

Group IV: Claim 88

First, since claim 88 depends from claims 27, it is anticipated by the Paine publication for at least the reasons discussed above with reference to the claims of Group II.

Second, claim 88 recites a relationship between categories and keywords (or serving constraints) which would enable a lookup. Specifically, claim 88 claims recite that each of the one or more categories *is specifically associated with* one or more keywords (or serving constraints). The use of collaborative filtering in the Paine publication to get terms (alleged to be keywords) used by other advertisers from existing terms (alleged to be categories) does not specifically associate the existing terms with the terms used by other advertisers. Therefore, claim 88 is not anticipated by the Paine publication for at least this additional reason.

Finally, the Examiner had argued that in the Paine publication, "if a program is able to get one set of terms from another set of terms, those two sets of terms have to be inherently 'associated'." (See Examiner's answer dated December 9, 2008, page 11.) This argument ignores the fact that these claims further recite that *the association is used to lookup keywords*. That is, in claim 88, the association exists before the keyword(s) are looked up and provided (and *must exist before* since the association is used by the lookup). By contrast, in the Examiner's application of the Paine publication, the association *exists only after* the other set of terms is generated by the program.

Group V: Claims 6, 19, 32, 47, 60 and 73

First, since each of these claims depends from a claim belonging to Group I, they are not anticipated by the Paine publication for at least the reasons discussed above with reference to the claims of Group I.

Further, these claims further recite performing qualification testing of the one or more keywords and determining if a keyword is qualified or unqualified for use as a targeting keyword of the advertisement, wherein each of the at least some of the keywords stored as one or more ad targeting keywords of the advertisement are qualified keywords. In rejecting claims 6, 19, 32, 47, 60 and 73, the Examiner contends that paragraphs [0115] and [0116] of the Paine publication teach performing qualification testing of one or more keywords to determine if a keyword is qualified or unqualified for use as an ad targeting keyword, and providing qualified keywords as ad targeting keywords. (See Paper No. 20100527, page 3.) The appellant respectfully disagrees.

The cited portion of the Paine publication describes "filter[ing] out bad terms" produced by the Spidering technique. (paragraph [0115] of the Paine publication) The filtering is based on the "frequency with which a term appears in documents on the World Wide Web, and the frequency with which users search for it." (paragraph [0115] of the Paine publication) Meanwhile, the specification of the present application provides an example of such **qualification testing**, stating:

Figure 8 is a flow diagram of an exemplary method 800 that may be used to try keywords for qualification as targeting keywords in a manner

consistent with the present invention. A keyword (or more than one keyword) is accepted. (Block 810). The trial operations may use one or more keywords as targeting keywords in the serving of an ad (or even a group of ads) (Block 820) and the performance of such ads may be tracked (Block 830). In one embodiment of the present invention, the serving of the ads using trial targeting keyword (s) may be limited to ad spots (inventory) that otherwise would be unused. After a certain amount of time and/or after a certain number of such ad serves, various branches of the method 800 may be performed responsive to various different performance levels. ***If a keyword performs well (e.g., in general, or for a particular category), it may be marked as a keyword to be suggested, and/or as a qualified keyword (e.g., in general, or for the particular category) (Block 850) before the method 800 is left (Node 870).*** In fact, generic creatives (for example, creative templates with certain advertiser information inserted) with qualified targeting keywords could be subject to expedited approvals. ***If, on the other hand, a keyword does not perform well (e.g., in general, or for a particular category), it may be disqualified and marked as unusable (e.g., in general, or for the particular category) (Block 860) before the method 800 is left (Node 870).*** In this way, advertisers can avoid the frustration of targeting their ads using poorly performing keywords. Although not shown, keywords can be assigned various different status levels associated with various different levels or performance. In one embodiment, ***performance for one or more keywords may be considered to be good if ads served pursuant to using***

the keyword(s) as targeting keywords perform (e.g., have a click-through rate) comparable to what salespeople and/or customers already think are the best keywords (e.g., the keywords that they are already using). [Emphasis added.]

(Page 22, line 25 through page 23, line 20 of the present application) As this example demonstrates, the Examiner's interpretation of "**qualification testing**" based on the "frequency with which a term appears in documents on the World Wide Web, and the frequency with which users search for it" is inconsistent with how one skilled in the art would interpret this term, in light of the specification.

Thus, claims 6, 19, 32, 47, 60 and 73 are not anticipated by the Paine publication for at least this additional reason.

Group VI: Claims 7-10, 20-23, 33-36, 48-51, 61-64 and 74-77

First, since each of these claims depends from a claim belonging to Group V, they are not anticipated by the Paine publication for at least the reasons discussed above with reference to the claims of Group V (and therefore of Group I).

Further, these claims recite that the act of performing qualification testing of the keyword tracks a performance of a set of one or more advertisements served using the keyword as an ad targeting keyword. In rejecting claims 7-10, 20-23, 33-36, 48-51, 61-64 and 74-77, the Examiner simply alleges that the performance of ads served using targeting keywords is tracked, citing

paragraphs [0087] and [0088] of the Paine publication. (See Paper No. 20100527, page 3.) However, merely **tracking performance** does not teach using such performance for purposes of **performing qualification testing** of keywords. Accordingly, these claims are not anticipated by the Paine publication for at least this additional reason.

Group VII: Claims 30 and 71

First, since claims 30 and 71 depends from claims 27 and 68, these claims are not anticipated by the Paine publication for at least the reasons discussed above with reference to Group II.

Next, these claims further recite that the advertisement includes ad creative information for rendering the advertisement and an address of a landing Webpage linked from the advertisement, and that the act of determining at least one category uses information from the landing Webpage. In rejecting dependent claims 30 and 71, the Examiner considered an advertiser Website as discussed in the Paine publication to contain ad creative information. (See Paper No. 20100527, page 3.) Although an advertiser Website might be linked to an ad, claims 30 and 71 recite that the ad includes ad creative information for rendering the ad and an address of a landing Webpage linked from the ad. This distinguishes the ad (and ad creative information) from an advertiser Website (which may be linked from the ad). Accordingly, these claims are not anticipated by the Paine publication for at least this additional reason.

Rejections under 35 U.S.C. § 103

Claims 2, 11, 15, 24, 28, 29, 37, 43, 52, 56, 65, 69, 70 and 78 stand rejected under 35 U.S.C. § 103 as being unpatentable over the Paine publication. The appellant respectfully requests that the Board reverse this ground of rejection in view of the following.

Group VIII: Claims 2, 15, 43 and 56

In rejecting claims 2, 15, 43 and 56, the Examiner contends that the Paine publication uses a list of good words for an advertiser's Website and a list of negative keywords that have no relation to the advertiser's Website, and concludes that it would have been obvious to one skilled in the art to include negative keywords because doing so would allow more accuracy in relation to relevant keywords. (See Paper No. 20100527, page 4.)

First, claims 2, 15, 43 and 56 depend from claims 1, 14, 42 and 55, respectively. The purportedly well-known teachings do not compensate for the deficiencies of the Paine publication with respect to claims 1, 14, 42 and 55 (discussed above), regardless of the presence or absence of an obvious reason to modify the Paine publication in view of the purported well-known teachings. Therefore, these claims are not rendered obvious by the Paine publication for at least the reasons discussed with respect to the claims of Group I above.

Second, one skilled in the art would not have been motivated to modify the Paine publication as proposed by the Examiner. Specifically, in the Paine publication, the positive and negative scores assigned to keywords is

used in the context of collaborative filtering for determining whether a new advertiser is similar to an existing advertiser. This has nothing to do with the use of negative keywords for controlling the serving of ads.

Third, in addition to the fact that the Examiner provides no obvious reason in the art for the proposed modification, the appellant notes that the use of **negative scores** in the Paine publication is not relevant to **negative keywords** in the present claims.

Consequently, claims 2, 15, 43 and 56 are not rendered obvious by the Paine patent for at least these additional reasons.

Group IX: Claims 28 and 69

In rejecting claims 28 and 69, the Examiner contends that the Paine publication uses a list of good words for an advertiser's Website and a list of negative keywords that have no relation to the advertiser's Website, and concludes that it would have been obvious to one skilled in the art to include negative keywords because doing so would allow more accuracy in relation to relevant keywords. (See Paper No. 20100527, page 4.)

First, claims 28 and 69 directly or indirectly depend from claims 27 and 68, respectively. The purportedly well-known teachings do not compensate for the deficiencies of the Paine publication with respect to claims 28 and 69 (discussed above), regardless of the presence or absence of an obvious reason to modify the Paine publication in view of the purported well-known teachings. Therefore, these claims are not rendered

obvious by the Paine publication for at least the reasons discussed with respect to the claims of Group II above.

Second, one skilled in the art would not have been motivated to modify the Paine publication as proposed by the Examiner. Specifically, in the Paine publication, the positive and negative scores assigned to keywords is used in the context of collaborative filtering for determining whether a new advertiser is similar to an existing advertiser. This has nothing to do with the use of negative keywords for controlling the serving of ads.

Third, in addition to the fact that the Examiner provides no obvious reason in the art for the proposed modification, the appellant notes that the use of **negative scores** in the Paine publication is not relevant to **negative keywords** in the present claims.

Consequently, claims 28 and 69 are not rendered obvious by the Paine patent for at least these additional reasons.

Group X: Claims 11, 24, 52 and 65

Regarding claims 11, 24, 52 and 65, the Examiner concedes that the Paine publication does not discuss the type of ad space that will be used for the ad on a search site. To compensate for this admitted deficiency of the Paine publication, the Examiner states:

common sense dictates that when a new advertisement is added to a search page, it should be added to an ad spot that would otherwise be unused, or the 2 advertisements would overlap and some data would be obstructed from view.

(Paper No. 20100527, page 5.) The appellant respectfully disagrees.

First, claims 11, 24, 52 and 65 indirectly depend from claims 1, 14, 42 and 55, respectively. The purportedly well-known teachings do not compensate for the deficiencies of the Paine publication with respect to claims 1, 14, 42 and 55 (discussed above), regardless of the presence or absence of an obvious reason to modify the Paine publication in view of the purported well-known teachings. Therefore, these claims are not rendered obvious by the Paine publication for at least the reasons discussed with respect to the claims of Group I.

Second, claims 11, 24, 52 and 65 concern qualification testing of keyword (or serving constraint) recommendations. (See, e.g., Figure 8 of the present application.) As stated, "[i]n one embodiment of the present invention, the serving of the ads using trial targeting keyword (s) may be limited to ad spots (inventory) that otherwise would be unused." (Page 22, line 30 through page 23, line 1) In this way, testing of keyword recommendations has a minimal impact on the system. For example, **ads being served with keywords being tested would not displace ads that would otherwise be served** in embodiments consistent with claims 11, 24, 52 and 65.

As used in the art, the term "**ad spot**" means a portion of a document, such as a Web page, available to show ads -- it does not mean any spot on a document. As described in the specification:

Suppose that the Web page has ten
(10) ad spots and ten (10) ads are

served. In this case, there are no unused ad spots, and the information 560 need not be updated. If, however, the Web page has ten (10) ad spots and only three (3) ads are served, there are seven (7) unused ad spots.

(Page 20, lines 4-8 of the present application)

In rejecting claims 11, 24, 52 and 65, the Examiner states that common sense dictates *when a new advertisement is added to a search page, it should be added to an ad spot that would otherwise be unused, otherwise the two ads would overlap.* (Paper No. 20100527, page 5.) However, often times there are a great number of eligible ads competing to be placed on an ad spot. If an ad (ad A) is served, it is very often the case that another ad (ad B) losses out to ad A, and ad B would otherwise have been served if not for ad A. (Indeed, this is the reason why advertisers submit bids for ad spots. If the ad spots were necessarily otherwise unused, advertiser could bid nothing or a nominal amount and be guaranteed to be served.) Thus, claims 11, 24, 52 and 65 describe an embodiment where the serving of the ads using trial targeting keyword(s) (i.e., qualification testing) may be limited to ad spots (inventory) that otherwise would be unused as described on Page 20, lines 4-8 of the present application above.

Thus, claims 11, 24, 52 and 65 are not rendered obvious by the Paine publication for at least this additional reason.

Group XI: Claims 37 and 78

Regarding claims 37 and 78, the Examiner concedes that the Paine publication does not discuss the type of ad space that will be used for the ad on a search site. To compensate for this admitted deficiency of the Paine publication, the Examiner states:

common sense dictates that when a new advertisement is added to a search page, it should be added to an ad spot that would otherwise be unused, or the 2 advertisements would overlap and some data would be obstructed from view.

(Paper No. 20100527, page 5.) The appellant respectfully disagrees.

First, claims 37 and 78 indirectly depend from claims 27 and 68, respectively. The purportedly well-known teachings do not compensate for the deficiencies of the Paine publication with respect to claims 27 and 68 (discussed above), regardless of the presence or absence of an obvious reason to modify the Paine publication in view of the purported well-known teachings. Therefore, these claims are not rendered obvious by the Paine publication for at least the reasons discussed with respect to the claims of Group II.

Second, claims 37 and 78 concern qualification testing of keyword (or serving constraint) recommendations. (See, e.g., Figure 8 of the present application.) As stated, "[i]n one embodiment of the present invention, the serving of the ads using trial targeting keyword (s) may be limited to ad spots (inventory) that otherwise would be unused." (Page 22, line 30 through page 23, line 1) In this way, testing of

keyword recommendations has a minimal impact on the system. For example, **ads being served with keywords being tested would not displace ads that would otherwise be served** in embodiments consistent with claims 37 and 78.

As used in the art, the term "***ad spot***" means a portion of a document, such as a Web page, available to show ads -- it does not mean any spot on a document. As described in the specification:

Suppose that the Web page has ten (10) ad spots and ten (10) ads are served. In this case, there are no unused ad spots, and the information 560 need not be updated. If, however, the Web page has ten (10) ad spots and only three (3) ads are served, there are seven (7) unused ad spots.

(Page 20, lines 4-8 of the present application)

In rejecting claims 37 and 78, the Examiner states that common sense dictates ***when a new advertisement is added to a search page, it should be added to an ad spot that would otherwise be unused, otherwise the two ads would overlap.*** (Paper No. 20100527, page 5.) However, often times there are a great number of eligible ads competing to be placed on an ad spot. If an ad (ad A) is served, it is very often the case that another ad (ad B) losses out to ad A, and ad B would otherwise have been served if not for ad A. (Indeed, this is the reason why advertisers submit bids for ad spots. If the ad spots were necessarily otherwise unused, advertiser could bid nothing or a nominal amount and be guaranteed to be

served.) Thus, claims 37 and 78 describe an embodiment where the serving of the ads using trial targeting keyword(s) (i.e., qualification testing) may be limited to ad spots (inventory) that otherwise would be unused as described on Page 20, lines 4-8 of the present application above.

Thus, claims 37 and 78 are not rendered obvious by the Paine publication for at least this additional reason.

Group XII: Claims 5, 18, 46 and 59

Claims 5, 18, 46 and 59 stand rejected under 35 U.S.C. § 103 as being unpatentable over the Paine publication in view of the Bourdoncle publication. The appellant respectfully requests that the Board reverse this ground of rejection in view of the following.

Claims 5, 18, 46 and 59 depend from claims 1, 14, 42 and 55, respectively. The purported teachings of the Bourdoncle publication do not compensate for the deficiencies of the Paine publication with respect to claims 1, 14, 42 and 55 (discussed above), regardless of the presence or absence of an obvious reason to modify the Paine publication in view of the purported teachings of the Bourdoncle publication. Therefore, these claims are not rendered obvious by the Paine and Bourdoncle publications for at least the reasons discussed with respect to the claims of Group I above.

Group XIII: Claims 31 and 72

Claims 31 and 72 stand rejected under 35 U.S.C. § 103 as being unpatentable over the Paine publication in view of the Bourdoncle publication. The appellant respectfully requests that the Board reverse this ground of rejection in view of the following.

Claims 31 and 72 directly or indirectly depend from claims 27 and 68, respectively. The purported teachings of the Bourdoncle publication do not compensate for the deficiencies of the Paine publication with respect to claims 27 and 68 (discussed above), regardless of the presence or absence of an obvious reason to modify the Paine publication in view of the purported teachings of the Bourdoncle publication. Therefore, these claims are not rendered obvious by the Paine and Bourdoncle publications for at least the reasons discussed with respect to the claims of Group II above.

Group XIV: Claims 12, 13, 25, 26, 53, 54, 66 and 67

Claims 12, 13, 25, 26, 53, 54, 66 and 67 stand rejected under 35 U.S.C. § 103 as being unpatentable over the Paine publication in view of the Giacalone publication. The appellant respectfully requests that the Board reverse this ground of rejection in view of the following.

First, claims 12 and 13 depend from claim 1, claims 25 and 26 depend from claim 14, claims 53 and 54 depend from claim 42 and claims 66 and 67 depend from claim 55. The purported teachings of the Giacalone publication do not compensate for the deficiencies of the Paine publication with respect to claims 1, 14, 42 and 55 (discussed above with respect to Group I), regardless of

the presence or absence of an obvious reason to modify the Paine publication in view of the purported teachings of the Giacalone publication. Therefore, these claims are not rendered obvious by the Paine and Giacalone publications for at least the reasons discussed with respect to the claims of Group I above.

Second, by ordering keywords based on number of unused ad spots associated with the keywords embodiments consistent with these claims provide advantages not even contemplated by the Paine publication. For example, "keywords that, if used as targeting keywords, would fill many otherwise unused ad spots may be preferred over those that would fill few otherwise unused ad spots." (Page 19, lines 28-30 of the present application) "In this way, keywords that, if used as targeting keywords, would fill more ad spots may be considered first." (Page 21, lines 27 and 28 of the present application)

The Examiner concedes that the Paine publication does not teach ordering ads based on an amount left in unused inventory. (See Paper No. 20100527, page 6.) To compensate for this admitted deficiency, the Examiner contends that paragraph [0027] of the Giacalone publication "teach[es] a system and method in which advertisements for clothing that have the highest inventory are shown more...." (Paper No. 20100527, page 6) Specifically, the Giacalone publication provides:

Some of the information displayed on the system can depend on information present in corporate databases. The corporate data gateway (16) is used to access this external information. *For example, if we want to key the advertisements of clothing so that the*

ones with the highest inventory are shown more, the corporate database can be queried to find out the relative inventory levels. If it is found that the inventory level is high for an item, the frequency of ads for that item can be increased, and thus provide for more sales of the merchandise. This type of application requires the corporate data gateway. Internally, the gateway contains a corporate data extractor that can query information on corporate databases via the corporate data network (24). It then takes this information and changes it into secured information that the Server (0) can use via the network interface (42).
[Emphasis added.]

(paragraph [0027] of the Giacalone publication) As can be appreciated from the foregoing, in the Giacalone publication, if it is found that the inventory level is high for an item (after specifically querying a corporate database for this information), the frequency of ads for that item can be increased. Thus, in the Giacalone publication, advertisements can be scheduled to appear more frequently if it is found that the inventory level **for the item being advertised** is high. However, scheduling an advertisement to appear more frequently after specifically querying the database to determine the inventory of the product being advertised, does not teach storing one or more keywords in an order determined using **unused inventory information about available ad spots** that otherwise would be unused by any ads.

Thus, claims 12, 13, 25, 26, 53, 54, 66 and 67 are not rendered obvious by the Paine and Giacalone publications for at least this additional reason.

Group XV: Claims 38, 39, 79 and 80

Claims 38, 39, 79 and 80, stand rejected under 35 U.S.C. § 103 as being unpatentable over the Paine publication in view of the Giacalone publication. The appellant respectfully requests that the Board reverse this ground of rejection in view of the following.

First, claims 38 and 39 indirectly depend from claim 27 and claims 79 and 80 depend from claim 68. The purported teachings of the Giacalone publication do not compensate for the deficiencies of the Paine publication with respect to claims 27 and 68 (discussed above with respect to Group II), regardless of the presence or absence of an obvious reason to modify the Paine publication in view of the purported teachings of the Giacalone publication. Therefore, these claims are not rendered obvious by the Paine and Giacalone publications for at least the reasons discussed with respect to the claims of Group II above.

Second, by ordering keywords based on number of unused ad spots associated with the keywords embodiments consistent with these claims provide advantages not even contemplated by the Paine publication. For example, "keywords that, if used as targeting keywords, would fill many otherwise unused ad spots may be preferred over those that would fill few otherwise unused ad spots." (Page 19, lines 28-30 of the present application) "In this way, keywords that, if used as targeting keywords, would fill more ad spots may be considered first." (Page 21, lines 27 and 28 of the present application)

The Examiner concedes that the Paine publication does not teach ordering ads based on an amount left in unused inventory. (See Paper No. 20100527, page 6.) To compensate for this admitted deficiency, the Examiner contends that paragraph [0027] of the Giacalone publication "teach[es] a system and method in which advertisements for clothing that have the highest inventory are shown more...." (Paper No. 20100527, page 6) Specifically, the Giacalone publication provides:

Some of the information displayed on the system can depend on information present in corporate databases. The corporate data gateway (16) is used to access this external information. **For example, if we want to key the advertisements of clothing so that the ones with the highest inventory are shown more, the corporate database can be queried to find out the relative inventory levels. If it is found that the inventory level is high for an item, the frequency of ads for that item can be increased, and thus provide for more sales of the merchandise.** This type of application requires the corporate data gateway. Internally, the gateway contains a corporate data extractor that can query information on corporate databases via the corporate data network (24). It then takes this information and changes it into secured information that the Server (0) can use via the network interface (42).
[Emphasis added.]

(paragraph [0027] of the Giacalone publication) As can be appreciated from the foregoing, in the Giacalone publication, if it is found that the inventory level is high for an item (after specifically querying a corporate

database for this information), the frequency of ads for that item can be increased. Thus, in the Giacalone publication, advertisements can be scheduled to appear more frequently if it is found that the inventory level **for the item being advertised** is high. However, scheduling an advertisement to appear more frequently after specifically querying the database to determine the inventory of the product being advertised, does not teach storing one or more keywords in an order determined using **unused inventory information about available ad spots** that otherwise would be unused by any ads.

Thus, claims 38, 39, 79 and 80 are not rendered obvious by the Paine and Giacalone publications for at least this additional reason.

VIII. Claims appendix

An appendix containing a copy of the claims on appeal is filed herewith.

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